

MPS 5 Engage & “I want to & I can”

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One of the most challenging tasks in solving problems is “defining the problem”. We usually spend about ½ our time doing this task. If we define the wrong problem, we have a useless answer. Defining a problem is stressful.

To polish our skills and to learn how to define problems well, research has suggested that the task be divided into three subtasks:

1. Engage; read the problem statement (or listen to someone tell us of the problems; or watch a problem develop). During this activity we critically read to understand the words and use positive self-talk of "**I want to and I can**" to manage our stress and motivate ourselves.
2. Sort the information into categories: the goal, the criteria/constraints and the given information about the situation.
3. Get a mental image (inside our head) of what the problem really is. This we call explore. It's complicated. It cannot be done well if the other two stages are not done well. We may bounce back and forth among these stages.

The most common mistake people make in problem solving is that they solve the wrong problem. The mistake occurs during the Define stage, the very stage we are looking at here.

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MPS 5 Engage and stress management:

Engage is the first step in problem solving. Here, the problem solver becomes aware of a problem (by reading it on an exam or from an assignment, by listening to it presented to us by a colleague or by a supervisor, or by being told that something needs to be fixed). The process of **Defining the real problem** is a three-stage process. This is the first stage: our initial engagement with the problem.

The main concerns here are with your attitude and your willingness to continue and your ability to curtail your impetuosity. In this MPS unit, we focus on those attitudes, and in particular on distress and stress management.

A *stressor* is an event (news of winning \$6 million, wedding, death of a friend, an exam, an awkward situation) to which your body naturally responds with endocrinal response and physiological tensions. Although the term stress refers to either positive or negative (happy or sad) events, we call negative or sad events as distress. The body's response might be so excessive as to cause inability to move, to think or to concentrate, nausea, sleeplessness, angry outbursts, tears or illness. *Stress management* is the combination of physical and mental skills you apply to minimize the impact of the stressors, to monitor and manage the body response and to ensure that long term harmful response does not occur.

This Unit has been developed with the guidance and help of the Canadian Mental Health Association and the Hamilton Wentworth Health unit and has been vetted by the Australian Mental Health Association.. Many thanks.

Skill development:

1. Introduction to some important *attitudes* that affect your ability to solve problems.
2. More practice on applying the strategy, introduced in MPS 4, to solve problems.
3. Engender an attitude of being patient with the problem solving process; not jumping into the problem solving process.
4. Skill with the first of three stages in **Defining a problem**.
5. Enrich your knowledge of stress, stressors and body response to stressors.
6. Provide you with evidence about the current level of annual and daily stress in your life.
7. Increase your awareness of the stresses your classmates, friends and colleagues are experiencing so that you can better work together and support one another.
8. Develop your skill in stress management that is needed, not just for problem solving, but for lifetime living. Later this is related to managing anger and dealing creatively with conflict.
9. Introduces the grieving model, as background for coping with change, MPS 49.
10. Provide a framework for the further development of your positive self confidence, your time management skills, .
11. Through self awareness, to improve self confidence. Introduction of Maslow's model of development to provide a framework.
12. Continue to develop an environment of trust where risking is OK.
13. Help overcome any exam anxiety you might have
14. Introduction to your network of people; background for MPS 56.

Pretest: Engage

Awareness: how aware are you of what you do when you use a strategy? Rate with an "x"

0	1	2	3	4	5	6	7	8	9	10
Unaware				Aware of					Very aware	
I just				Some					I can describe	
do it									The details of	
									how I do it	

Skill: how skilled are you in doing this activity? Rate with an "x"

0	1	2	3	4	5	6	7	8	9	10
Poor		Fair		Good			Very good			Excellent

Comments:

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Pretest: Stress management

Awareness: how aware are you of what you do with this activity? Rate with an "x"

0	1	2	3	4	5	6	7	8	9	10
Unaware				Aware of						Very aware
I just				Some						I can describe
do it										The details of
										how I do it

Skill: how skilled are you in doing this activity? Rate with an "x"

0	1	2	3	4	5	6	7	8	9	10
Poor		Fair		Good			Very good			Excellent

Comments:

Learning objectives

MPS 5 Engage & Stress management

1.1 given a term listed under "concepts introduced", you should be able to give a word definition, list pertinent characteristics and cite an example.

1.2 you will be able to list at least nine techniques for managing stress.

1.3 you can define stress and distress and describe Selye's model.

1.4 you will be able to identify two people who are role models for you, explain why they are role models, and list what particular action they have taken that you want to emulate.

1.5 you will be able to Maslow's model of the five levels of human need.

1.6 you will be able to describe the various stages in the grieving model

2.1 you will be able to list the attitudes that unsuccessful problem solvers possess and rate your current attitude. Over the progression of this course you will shift your attitude 2

units toward those held by successful problem solvers.

2.2 you will be able to demonstrate the muscle relaxation technique.

2.3 you will list the traditions that are important to you and that provide touchstones of stability in your life.

2.4 given a week, you will be able to monitor your self-talk, assess whether it is positive or negative, identify the types of trigger situations that cause the self-talk and set goals to reduce the amount of negative self-talk.

3.1 given a set of facts about a situation, you will be able to identify which facts are within your control and which ones are not. Your assessment will agree with that of the tutor 85% of the time.

3.2 given the response from the Rotter locus of control or the Heppner PSI inventories, you will be able to rate the degree to which your score "represents you", identify what does represent you and list the implications.

3.3 given a problem statement, you will underline or circle

MPS 5-4

any words that might be ambiguous.

3.4 given that you have read the problem statement, you will say to yourself "I want to and I can."

3.5 given a task to do, you will be able to identify a sub-task which is challenging enough but not overwhelming to you. The criteria you used shall be described to the tutor and he/she will agree 85% of the time that the criteria are pertinent and they have been correctly applied.

3.6 given the results from the Billings-Moos test, you will be able to interpret your results and set goals for development.

3.7 given that you have successfully solved a problem, you will list the stress this causes and proactively create an action plan to overcome this.

4.1 you will be able to write out your personal, practical interpretation of the relationship between stress management to time management.

4.2 given a future event, you will be able to verbally describe to a Whimbey-pair listener, an imaginary movie of the event. The movie will last 5 minutes.

4.3 given a spider diagram, you will be able to identify about 200 people in your network.

5.1 given that you want to improve your ability to manage stress, you will set goals, create criteria and gather evidence to show growth and achievement of your goals.

6.1 given a list of options for managing stress, you will be able to identify which ones you currently use, which ones might work for you and which ones would not work for you.

6.2 given problem situations in general, you can rate which elements in the situation stress you most, and proactively create an action plan to overcome the distress.

Concepts introduced Stress, distress, Holmes Rahe inventory, Billings-Moos feedback, Selye model, self-talk, locus of control, attitudes of successful versus unsuccessful problem solvers, factors that relate to exam anxiety, Maslow's model of development, grieving model, network of people and spider of connections.

MPS 5: Stress management: Example assessment tasks:

1.(a) Monitor your own stress level before you read question 2, after you have read it and after you have completed question 4. Use a rating scale of 0 (meaning negligible stress), and 10 meaning very high stress. Distinguish between positive stress and distress. Use Table 2 to summarize ratings. Table 2: Summary of ratings

Concerning Qu. 2	positive stress	distress
before reading		
after reading		
after completing		

(b) List the stress management techniques that seem to work for you under "test" conditions.

***** end of question 1 *****

2. Define the stated problem and visual thinking

For the page-long problem given in Table 3:

- (a). identify the stated goal, task to be done, or unknown to be determined.
- (b). draw a "good" diagram(s) to represent the situation.
- (c). indicate the system by drawing (on the diagram drawn in (b) above) a dotted line around the system.
- (d). identify the knowns.
- (e). identify the stated constraints.
- (f). identify the stated criteria.

(DO NOT SOLVE THE PROBLEM)

stress rating after reading this problem statement ___ distress rating _____
 stress rating after completing problem _____distress rating _____

3. From the in-class activity, you have the following evidence:

- your reflections that you wrote three times during the activity.
- your worksheets and the statement of the exercises.
- the DISCOVERY sheet.
- your awareness and skill checklist **before** and **after** the activity.

Write up a reflective assessment of the degree to which you have achieved the objectives. Refer to the evidence by number and relate your evidence and claims to the objectives by number.

4. You will be able to list the elements in a problem statement or situation that cause you distress, and for each write out actions that you have taken to overcome the distress.

5. Given that you have successfully solved a problem, you will describe the potential causes of stress and list the actions you take to overcome this stress.

MPS 5-5

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Evidence-based targets for problem solving

Evidence-based targets	Progress toward internalizing these targets				
	20%	40%	60%	80%	100%
● When you encounter a problem, make sure that you understand the meanings of all the words in the problem statement. Don't assume! Unsuccessful problem solvers tend to skip over parts that they are unsure of and hope it works out (23).					
● When you first encounter problems, say “I want to and I can.”					
● Stress can be positive or negative (distress). Some stress is beneficial.					
● Selye's model of stress provides a framework for managing stress.					
● Stress management is related to positive self-image and to skill in time management					
● To manage stress, focus only on issues under your control					
● Do not use <i>negative</i> self-talk					
● Use problem solving to address stressful situations. proactively address the situation; do not avoid.					
● Distress may occur when you first encounter problems; manage it.					
● Over a dozen approaches are available to manage stress. Discover which ones work best for you and actively make these part of your routine.					
● Develop good stress management techniques before tragedy strikes;					
● Exam anxiety correlates with long and short term stress, self image and willingness to engage in solving difficult problems. You can positively change each of these to minimize exam anxiety (31).					
● Positive stress occurs when you successfully solve a problem; manage it. (9, 20)					

References 1 to 25 cite Novice versus expert research summarized in PS News 55

31. Roney and Woods (1998) Prescription for Exam Anxiety

MPS 5-6

MPS 5: Attitudes held especially during the Engage stage

Attitudes held by unsuccessful problem solvers	Place an "x" indicating your current disposition, use of these attitudes toward your problem solving				Attitudes held by successful problem solvers
	mainly	mix but more unsuccessful ones	mix but more successful ones	mainly successful ones	
If I succeed, then I was "lucky"					If I succeed, then its because of my ability and my effort
not confident in my problem solving skills					confident and self-rate myself as intuitive, cautious and systematic
afraid I'll make as mistake					willing to risk
I'm dumb					I try my best
don't want to try difficult problems					willing to try
give up if information is missing or ambiguous					willing to make assumptions and proceed
if I fail, then I'm a lousy person; confuse performance with personal worth.					separate performance from personal worth
become distressed					manage distress
overcome distress by pulling out any kind of sample solution and using this as a solution					systematically and patiently apply the strategy using the combination of thinking skills and attitude

MPS 5-7

MPS 5: Engage: clarify words

Statement	Circled words for Clarification
<p>Bob and Pete are having a heated argument. Suddenly Pete confronts Bob and says, "Would you please listen to me." What would you do now?</p>	<p>"Bob" and "Pete", details about them please "heated" criterion for heated. "Argument" please define. "Suddenly" please elaborate on what this means. Who turned to whom, what went on just before? How sudden is sudden? After 5 s? After 2 min? "What would you do?" what's my relationship to Bob and Pete? Why am I expected to do anything? "Now"? Criterion for when this occurs</p>
<p>"It's Monday, I have to put out the garbage"</p>	
<p>Problem From your text in or consider a task given to you recently by your supervisor</p>	

MPS 5-8

Checklist of key words that pertain to problem statements.

analyze

assess

compare with,

compare to

contrast

critique, criticise

comment

define

discuss

design

determine

enumerate

evaluate

environmental impact

explain

illustrate

impact

interpret

justify

list

outline

propose

prove

relate

review

state

summarize

support

show that

trace

MPS 5-9

MPS 5: Personal needs Maslow's hierarchy of development

Highest
seek this after
have achieved #4

5. Need for self-fulfilment
Personal growth, developing talents
Achieving goals, improving skills
Lifetime learning

Seek this after
have achieved #3

4. Need for self respect and self worth
Self confidence, responsibility
Independence, recognition, service

Seek this after
have achieved #2

3. Social needs
Friendship, acceptance, family
Sense of belonging, love

Seek this after
have achieved #1

2. Security needs
Safety, economic security
Avoidance of danger, prevention of injury

Starting need

1. Physical needs
Air, food, shelter, water

MPS 5-10

MPS 5 Model of the grieving process and relationship to stress, and anger (from Woods, 1994)

Change triggers:

1. Shock
2. Denial
3. Strong emotions: anger
4. Resistance/ withdraw
5. Acceptance/ resignation
6. Struggle
7. Better understanding
8. Integration and new level of performance

Selye's model:

stressor triggers body response

anger: we choose to be angry: stress triggers anger.

MPS 5-11

Distress:

Exam anxiety for students:

Debil Score _____ >60
Facil Score _____

Problem solving distress:

Heppner Locus of control _____ 15 to 20; std dev. 5

Heppner problem avoidance _____ > 45 to 50; std dev. 15

Billings-Moos avoid _____ >5

Kellner & Sheffield short term stress _____ >

long term stress _____ >

lack of confidence _____ >

Your action plan:

Data:

MPS 5-12

Holmes Rahe Life-change units as a measure of psychological stress.

Event or stressor	No. of times in past year	Life-change impact per event	Total for year:
Death of spouse	_____	100	_____
Divorce	_____	73	_____
Marital separation	_____	65	_____
Jail term	_____	63	_____
Death of a close family member	_____	63	_____
Personal injury/ illness	_____	53	_____
Marriage	_____	50	_____
Fired at work	_____	47	_____
Required to withdraw from a program	_____	47	_____
Marital reconciliation	_____	45	_____
Retirement	_____	45	_____
Change in health of family member	_____	44	_____
Pregnancy	_____	40	_____
Sex difficulties	_____	39	_____
Gain new family member	_____	39	_____
Business/ school readjustment	_____	39	_____
Change in financial state	_____	38	_____
Death of close friend	_____	37	_____
Change to a new program	_____	36	_____
Change in the number of arguments with spouse	_____	35	_____
Mortgage > \$30,000	_____	31	_____
Foreclosure of loan/ mortgage	_____	30	_____
Change in responsibilities at work	_____	29	_____
Son/daughter leaves home	_____	29	_____
In-law troubles	_____	29	_____
outstanding personal achievement	_____	28	_____
Spouse begins/ stops work	_____	26	_____
Begin/ end of school	_____	26	_____
Change in living conditions	_____	25	_____
revise personal habits	_____	24	_____
Trouble with supervisor/ teacher	_____	23	_____
Change in work hours/ conditions	_____	20	_____
Change in residence	_____	20	_____
Change in schools	_____	20	_____
Change in recreation	_____	19	_____
Change in church activities	_____	19	_____
Change in social activities	_____	18	_____
Mortgage or loan < \$30,000	_____	17	_____
Change in sleeping habits	_____	16	_____
Change in family get-togethers	_____	15	_____
Change in eating habits	_____	15	_____
Vacation	_____	13	_____
Christmas	_____	12	_____
Minor violation of the law	_____	11	_____
Parking ticket/ speeding ticket	_____	11	_____
Total in a year			_____

MPS 5-13

MPS 5: Stress management: Worry about those in your control

Rotter value _____ Heppner value _____

You are the process engineer in charge of the ethylene and everything within its battery limits. The safety inspector telephones to say that this morning the gas samples from the sewer drop boxes with the battery limits of the plant are explosive. These sewers serve upstream plants: styrene and propylene. Drop box **A** is in the sewer upstream of the ethylene plant. Drop box **B** is just at the entrance to the ethylene battery limits but receives water from the heat exchangers on the gas dryer regeneration system within the battery limits and the discharge from drop box **A**. Drop box **C** receives the water from wash water, drain water from the KO pot after the dryers and coolant on the pumps as well as the discharge from drop box **B**. Clear up the problem.

The problem arises at 8:20 am. The following background information and resources are available. Identify which ones you have direct control over. Do not respond to the situation; respond to the stated facts in each of the following statements.

1. The safety inspector, Hack, is a boorish oaf who is a stickler for details. Yes? No?
2. The laboratory can analyze liquid samples with their equipment but the instrument to analyze gases is broken. Yes? No?
3. The lab schedule is busy with top priority analyses. Any new samples could not be analyzed until after 3:00 pm. Yes? No?
4. The union prevents you from analyzing the samples; if you do there will be a strike. Yes? No?
5. The upstream styrene plant is operating at about 80% capacity. Yes? No?
6. The upstream propylene plant is shut down. Yes? No?
7. The operator on the ethylene plant is very cooperative. Yes? No?
8. The operator takes orders from you. Yes? No?
9. Samples can be taken at any of the drop boxes **A, B, C** and at any of six intermediate sewer gates within the battery limits. Yes? No?
10. No blueprints or layout plans are available for the sewer system. Yes? No?
11. Your salary is being evaluated next Thursday at 4:30 pm. Yes? No?
12. You are to prepare a progress report for the performance review next Thursday. Yes? No?

MPS 5-14

MPS 5: Stress management

2. **Do something physical** :Hours per week in physical activity _____ Ideal for you _____

3. **Destimulating**: my favourite is _____

4. **Self talk:**

Negative self talk; list negative comments you say to yourself that sometimes slip out	Action to take

5. **Plan ahead**: see related MPS 17 on time management

Movie of your mind: Task _____

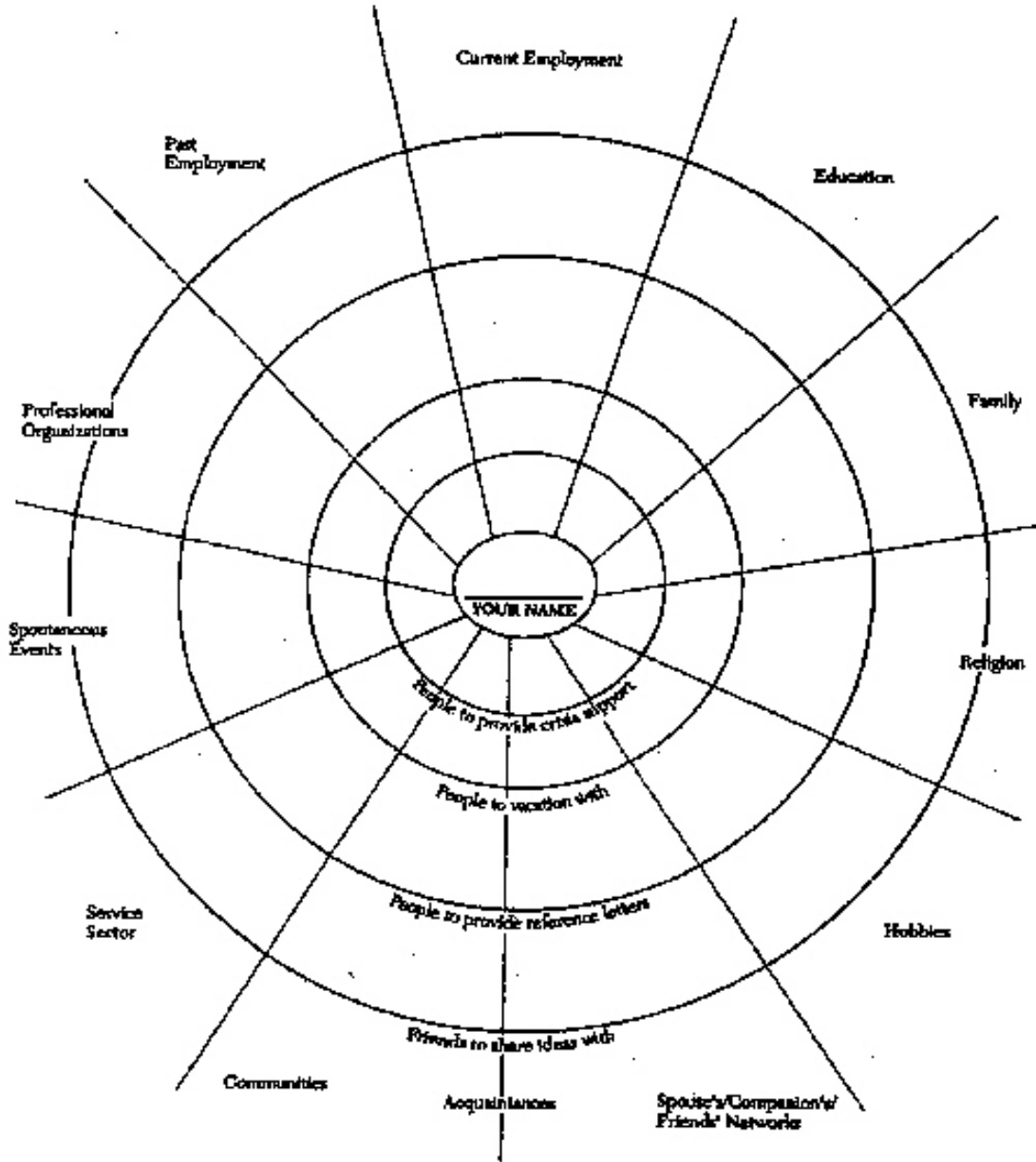
6. **Rename**:

Stressful future event	New name
problem to solve	opportunity to find
exam	
speech	
job interview	
ask for a date, dance	

MPS 5-15

MPS 5 Networking. All the people that you know are in your network. Initial estimate _____

Networking: All of the people that you know are in your network. Initial estimate.



MPS 5-16

MPS 5 Networking criteria:

1. At least four people whom you can count on during a crisis: Yes Not yet Maybe

2. At least three people with whom to share activities you enjoy:

Activity _____	Yes	not yet	Maybe
Activity _____	Yes	not yet	Maybe
Activity _____	Yes	not yet	Maybe

3. At least twelve people who can help you achieve your goals and get things done: Yes not yet Maybe

4. At least three people who could write positive letters of recommendation for you. Yes not yet Maybe

for more see Networking: how to enrich your life and get things done," Woods and Ormerod, Peiffer Publishers 1993

8. Positive addictions:

9. Be decisive: PJ dimension on Jungian typology

P ... need a lot of data before act	20	J who needs data, let's act
--------------------------------------------	----	------------------------------------

MPS 5-17

MPS 5: Distress and problem solving:

Potential stressor	rating	Action plan
1. Time: prefer to take more time to do assignments but there are only 24 h in a day		
2. Time: pressure: Know if you get stuck on something, you're in trouble		
3. Supervisor/ Prof says it's pretty straight forward		
4. Ask people for help and they say "Oh that's so easy!"		
5. Not totally understand the question and no one to talk to for clarification		
6. Don't know where to start		
7. Answer makes no sense but can't find a mistake		
8. Supervisor/ Prof makes mistakes and sends you on the wrong track		
9. Questions on test not related to the ones in the book. Assignments different from any you have encountered before		
10. Know how important it is to do well on this assignment or test for your performance review. "This test is worth 90% of your grade." "This is our most important client."		
11. Different and weird symbols and terminology that you have not heard before.		
12. Momentarily forget a key formula or equation		
13. Get stuck and can't get unstuck		
14. Try many times and always get failure		
15. Problem statements that are longer than 1 page.		

MPS 5-18

Potential stressor	rating	Action plan
16. So lost that you can't focus		
17. Give up.. So desperate that you say "Oh well, who cares..."		
18. Read the whole related Chapter and still can't figure out what the question is about. Read all the reference books but cannot sort out the assignment.		
19. Knowing you can do the problem on a test but you are just not prepared		
20. No answer in the back of the book to check		
21. Too noisy to concentrate		
22. Hate the material and hate the prof/ supervisor		
23. Spend a lot of time on a test on one question that you can't get although you know you're <i>almost there</i> .		
24. Don't see any use for the material.		
25. Problem statement initially sounds like a problem you had great difficulty with or could not solve recently		
26. Have to read and reread problem statement; it's so confusing		
27. Problem statement includes terms you have never heard of		
28		
29		
30		

MPS 5-19

MPS 5 Action summary

Current level of stress:	Symptoms [503]	none	few	some	many
Holmes Gmelch [500]	very high	high	medium	low	very low
Shealy [501]	very high	high	medium	low	very low
Exam anxiety [504]	very high	high	medium	low	very low
Kellner-Sheffield	very high	high	medium	low	very low
Billings-Moos PS	very low	low	medium	low	very low
Billings-Moos avoid	very high	high	medium	low	very low

Action:

	currently use	not for me	might work	this will work for me with practice
1. Only worry about what you have control over				
2. Exercise				
3. Destimulating				
4. Self talk rate your own self talk <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> don't know Very negative Neutral Very positive </div> <hr style="width: 30%; margin: 5px auto;"/>				
5. Plan ahead				
6. Rename anxious event				
7. Support system <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> traditions OK Probably more </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> people OK Probably more </div>				
8. Positive addictions				
9. Be decisive				
10. Put it into perspective				
11. Role models <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> None Few Some Many </div>				

Reflections:

DISCOVERY
Activity

What did you discover?

So What?